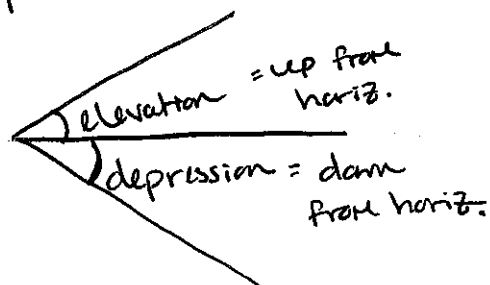


### 3/11 - Trig Word Problems

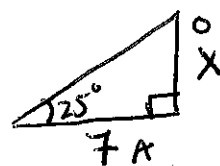
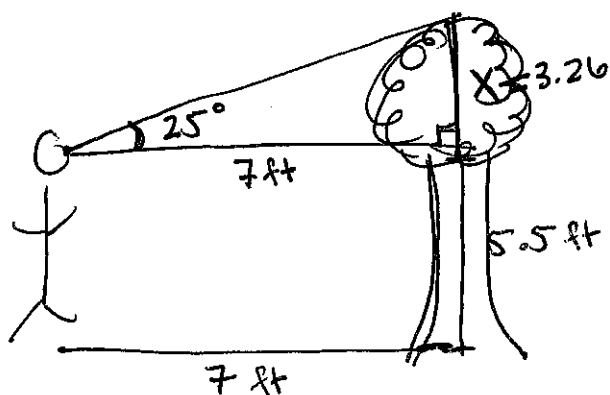
\* **DRAW A PICTURE!**

"Angle of elevation or depression"

\* Always start at horizontal



Ex 1: Joe-Bob is 7 ft from the base of a tree. From his eye-level to the top of the tree, there is a  $25^\circ$  angle of elevation. Joe-Bob's eye level is 5.5 ft from the ground. How tall is the tree?



$$7 \cdot \tan 25^\circ = \frac{x}{7} \cdot 7$$

$$x = 7 \cdot \tan 25^\circ \approx 3.26 \text{ ft}$$

$$\text{Tree height} = 3.26 + 5.5$$

$$= 8.76 \text{ ft}$$